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| 10/775,825      | 02/10/2004  | David Paul Yach      | PUS1434 1578.108    | 8176             |

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EXAMINER

VAUTROT, DENNIS L

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| ART UNIT | PAPER NUMBER |
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2167

DATE MAILED: 12/12/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/775,825

Applicant(s)

YACH ET AL.

Examiner

Dennis L. Vautrot

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 February 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 10/21/2004.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 21 October 2004 has been received and entered into the record. Since the IDS complies with the provisions of MPEP § 609, the references cited therein have been considered by the examiner. See attached forms PTO-1449.

### ***Claim Objections***

2. Claim 5 is objected to because of the following informalities: Claim 5 recites the step "to prevent inclusion in the change list" twice. This renders the claim indefinite because it is not clear how the second recitation of this limitation is mean to further limit the claim. Examiner interpreted this to be a typo and examined the case with that interpretation. Correction or clarification is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

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4. Claims 1 and 15 are rejected under 35 U.S.C. 102(b) as being anticipated by **Huang et al.** (hereinafter **Huang**, US 5,966,714).

5. Regarding claim 1, **Huang** discloses in a radio communication system (see column 1, lines 19 – 20 “...in particular cellular telephones...”) having a network part at which a network-copy database [master address book] is maintained and a mobile node at which a mobile-copy database [subset] is maintained (see column 4, lines 20 – 25 “The present invention stores a subset of a given large address book (also referred herein as a master address book) locally on a SmartPhone, or any other client device such as a PDA to decrease connection time and enhance responsiveness to E-mail address requests.” And see column 5, lines 43 – 45 “PIM 120, Mailbox 124 and MAB 126 may reside on network server 127 instead of on host PC 102.” In other words, this is the network copy database.), an improvement of apparatus for facilitating placement of data stored at a selected one of the network-copy database and mobile-copy database into a form to facilitate efficient communication thereof pursuant to a synchronization session (See column 2, lines 10 – 15 “Therefore it is desirable to have a method and an apparatus...to provide an efficient method for keeping the personal address books synchronized with a main database.”), said apparatus comprising:

a change list maintained at least at a selected one of the network part and the mobile node and associated with a corresponding selected one of the network-copy database and the mobile-copy database, said change list containing a history of changes made to the corresponding selected one of the network-copy database and the

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mobile-copy database (See column 12, lines 25 – 27 “In step 391, changes to DAB and DAB1 are queued up until a connection is made between the two.” DAB and DAB1 represent the different databases – one on the network side and one on the mobile device.);

a change-list coordinator adapted to receive indications of changes made to the corresponding selected one of the network-copy database and the mobile-copy database (See column 8, lines 35 – 37 “Change Detection mechanism 230 detects the changes which have occurred to a given mail box since the last synchronization.”), said change-list coordinator for coordinating the history of changes contained in said change list such that the history of changes includes non-redundant change listings (See column 10, line 64 – column 11, line 2 “First, a modification that indicates the mail address is adjusted and then a modification that indicates that the phone number is adjusted are made. The end results is as though both changes occurred. However, it should be noted that if two changes are made to the same field, only the latter of the two changes will be of effect.” The last part of the quote is interpreted to represent the non-redundancy part of the claim.)

6. Regarding claim 15, **Huang** discloses in a method of communicating in a radio communication system (see column 1, lines 19 – 20 “...in particular cellular telephones...”) having a network part at which a network-copy database [master address book] is maintained and a mobile node at which a mobile-copy database [subset] is maintained (see column 4, lines 20 – 25 “The present invention stores a

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subset of a given large address book (also referred herein as a master address book) locally on a SmartPhone, or any other client device such as a PDA to decrease connection time and enhance responsiveness to E-mail address requests.” And see column 5, lines 43 – 45 “PIM 120, Mailbox 124 and MAB 126 may reside on network server 127 instead of on host PC 102.” In other words, this is the network copy database.), an improvement of method for facilitating placement of data stored at a selected one of the network-copy database and mobile-copy database into a form to facilitate efficient communication thereof pursuant to a synchronization session (See column 2, lines 10 – 15 “Therefore it is desirable to have a method and an apparatus...to provide an efficient method for keeping the personal address books synchronized with a main database.”), said method comprising:

coordinating a history of changes indicative of changes to a selected one of the network copy database and the mobile copy database such that the history of changes includes only non-redundant change listings (See column 10, line 64 – column 11, line 2 “First, a modification that indicates the mail address is adjusted and then a modification that indicates that the phone number is adjusted are made. The end results is as though both changes occurred. However, it should be noted that if two changes are made to the same field, only the latter of the two changes will be of effect.” The last part of the quote is interpreted to represent the non-redundancy part of the claim.); and

placing the history of changes coordinated during said operation of coordinating into a change list maintained at a corresponding one of the network part and the mobile node (See column 12, lines 25 – 27 “In step 391, changes to DAB and DAB1 are queued

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up until a connection is made between the two." DAB and DAB1 represent the different databases – one on the network side and one on the mobile device.), corresponding to the network copy database and the mobile copy database of which the history of changes is indicative (See column 8, lines 35 – 37 "Change Detection mechanism 230 detects the changes which have occurred to a given mail box since the last synchronization.").

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2 – 14 and 16 - 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Huang** as applied to claim 1 and 15 respectively above, and further in view of **Multer et al.** (hereinafter **Multer**, US 7,035,878).

9. Regarding claims 2 and 16, **Huang** teaches wherein data maintained at the network-copy database and at the mobile-copy database is formatted into data records (See FIG 1d showing the different records formatted into rows), each data record formed of at least one data field (See FIG 1d, with fields being represented by the columns), and wherein said change list coordinator coordinates the history of changes such that, for any data record, the change listings note changes, if any, to the at least

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one data field of the data records (See column 8, lines 35 – 37 “Change Detection mechanism 230 detects the changes which have occurred to a given mail box since the last synchronization.”).

**Huang** does not explicitly disclose excluding data fields of the data records that are absent changes.

However **Multer** discloses excluding data fields of the data records that are absent changes. (See column 28, line 40 – 41 “...so a new data package or the change log, CONT.D002, is created and uploaded to network...” and see column 28, lines 51 - 54 “In addition, data package CONT.D002 includes the field to be modified, in this example, ‘phone,’ and the new information, in this example John Smith’s new phone number.” Here, the only fields that are being transferred are the ones of the record that have changes – thus, fields absent changes are excluded.)

It would have been obvious to one with ordinary skill in the art at the time of the invention to combine the references because both are related to synchronizing databases using a change log, and by including the exclusion of fields [records] that have not been modified, the synchronization may be performed more rapidly as was commonly known in the art at the time of the invention and also because it will use less bandwidth and take up less space, as was disclosed in **Multer** – see column 3, lines 14 – 15 “These objectives include speed, low bandwidth, accuracy, and platform independence.” It is for this reason that one of ordinary skill in the art would have been motivated to include the excluding data fields of the data records that are absent changes.



10. Regarding claims 3 and 17, the combination of **Huang** and **Multer** discloses wherein said change list coordinator coordinates the history of changes such that the change listings note, for each data record containing a change, a single resultant data record, in which changes, if any, are cumulated and the single-resultant data record is formed as a result thereof. (See **Multer**, column 3, lines 48 – 50 “A combined data package is thus defined having a combined transaction with the identification number. The second data package is replaced with the combined data package.” This represents the single-resultant data record that is formed as in the claim.)

11. Regarding claims 4 and 18, the combination of **Huang** and **Multer** discloses wherein the changes to at least one data record comprise a first change to a selected data field thereof and a second change to the selected data field, and wherein the single resultant data record is formed of a cumulated result of the first change and the at least the second change. (See **Huang** column 10, line 67 – column 11, line 2 “However, it should be noted that if two changes are made to the same field, only the latter of the changes will be of effect.” This is interpreted to mean that the second change would be the cumulated result because whether the field was edited, deleted, added etc., in the first change, the cumulated result would still be whatever was in the second change for any of these situations.)

12. Regarding claims 5 and 19, the combination of **Huang** and **Multer** discloses wherein the second change negates the first change and wherein said change-list coordinator further coordinates the history of changes contained in said change list to prevent inclusion in the change list to prevent inclusion in the change list of changes that negate one another. (See **Multer** column 29, lines 45 – 60, where it is specifically mentioned superfluous information being deleted, then giving an example of a Add command followed by a delete. Here, the repetition of “to prevent inclusion in the change list” is interpreted as an accidental typo and is ignored.)

13. Regarding claim 6, the combination of **Huang** and **Multer** discloses the changes to at least one data record comprise a first change to a first selected data field [mail address] thereof and a second change to a second selected data field [phone number] thereof, and wherein the single resultant data record is formed of the first selected data field and the second selected data field. (See **Multer**, column 30, lines 40 – 59 where this scenario of combining changes into one is described as the changes being collapsed into a new data package.)

14. Regarding claim 7, the combination of **Huang** and **Multer** discloses the single resultant data record comprises solely the first selected data field and the second selected data field. (See **Multer**, column 30, lines 40 – 59 where only the single fields that are changed are part of the data record.)

15. Regarding claim 8, the combination of **Huang** and **Multer** discloses the history of changes contained in said change list and coordinated by said change list coordinator are formatted to be free of null terminated values. (See **Huang**, column 14, lines 64 – 67 “The details on how to implement the importation and exportation to and from application using published formats are application specific and well understood by those skilled in the art.”)

16. Regarding claims 9 and 20, the combination of **Huang** and **Multer** discloses said change list coordinator further comprises a formatter, said formatter for formatting each change listing of the history of changes contained in said change list to be of a selected format. (See **Huang**, column 14, lines 54 – 63.)

17. Regarding claim 10, the combination of **Huang** and **Multer** discloses the selected format by which the formatter of said change list coordinator formats each change listing includes a tag length encoding format. (See **Multer**, column 11, line 8 – 10 “The size of the AOS will depend on the data being collected by each device engine.”)

18. Regarding claim 11, the combination of **Huang** and **Multer** discloses each change listing is of at least a first selected change-type of a set of change-types, the change-type defining a tag, the tag contained in the change listing when formatted pursuant to the tag length encoding format. (See **Multer** column 25, line 41 – 53)

19. Regarding claim 12, the combination of **Huang** and **Multer** discloses each change listing is of a selected listing length, the history when formatted pursuant to the tag length encoding format. (See **Multer**, column 25, lines 62 – 63)

20. Regarding claim 13, the combination of **Huang** and **Multer** discloses said change listing is free of terminator values separating separate ones of the change listings thereof. (See **Multer** Column 25, lines 62 – 63. If the length is kept to the size of the field, it is interpreted that no terminator will be needed.)

21. Regarding claim 14, the combination of **Huang** and **Multer** discloses said change listing is of a selected maximum size. (See **Multer** column 29, lines 13 – 16)

### ***Conclusion***

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

**Birkler et al.** (US 6,516,314) discloses additional optimizations for change logs.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dennis L. Vautrot whose telephone number is 571-272-2184. The examiner can normally be reached on Monday-Friday 9:00-6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Dv

8 December 2006

  
JOHN COTTINGHAM  
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